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Natural Resources Committee  
February 15, 2018

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[LB908 CONFIRMATION]

The Committee on Natural Resources met at 1:30 p.m. on Thursday, February 15, 2018, in Room 1525 of the State Capitol, Lincoln, Nebraska, for the purpose of conducting a public hearing on a gubernatorial hearing for Scott Cassels with the Nebraska Game and Parks Commission and LB908. Senators present: Dan Hughes, Chairperson; Bruce Bostelman, Vice Chairperson; Joni Albrecht; Suzanne Geist; Rick Kolowski; John McCollister; Dan Quick; and Lynne Walz. Senators absent: None.

SENATOR HUGHES: We're good to go. Okay. Welcome to the Natural Resources Committee. I'm Senator Dan Hughes; I'm from Venango, Nebraska, and I represent the 44th Legislative District. I serve as Chair of this committee. The committee will take up the bills in the order posted. Our hearing today is your public part of the legislative process. This is your opportunity to express your position on the proposed legislation before us today. The committee members might come and go during the hearing, this is just part of the process as we have bills to introduce in other committees. I ask that you abide by the following procedures to better facilitate today's proceedings. Please silence or turn off your cell phones. Introducers will make initial statements followed by proponents, opponents, and neutral testimony. Closing remarks are reserved for the introducing senator only. If you are planning to testify, please pick up a green sign-in sheet that is on the table at the back of the room. Please fill out the green sign-in sheet before you testify. Please print and it is important to complete out the form in its entirety. When it is your turn to testify, please give the green sign-in sheet to the committee clerk or to a page. This will help us make a more accurate public record. If you do not wish to testify today but would like to record your name as being present at the hearing, there's a separate white sheet on the tables that you can sign in for that purpose. This will be part of the official record of the hearing. If you have handouts, please make sure you have 12 copies and give them to the page when you come up to testify and they will be distributed to the committee. When you come up to testify, please speak clearly into the microphone. Tell us your name and please spell your first and last name to ensure we get an accurate record. We will be using the light system today. You will have five minutes to make your initial remarks to the committee. When you see the yellow light come on, that means you have one minute remaining, and the red light indicates your time has ended. Questions from the committee may follow. No displays of support or opposition to a bill, vocal or other wise, is allowed at a public hearing. The committee members with us today will introduce themselves starting on my left.

SENATOR KOLOWSKI: Rick Kolowski, District 31 in southwest Omaha.

SENATOR GEIST: Suzanne Geist, District 25 which is the east side of Lincoln and the towns of Walton and Waverly.

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SENATOR QUICK: Dan Quick, District 35, Grand Island.

SENATOR WALZ: Lynne Walz, District 15, Dodge County.

SENATOR HUGHES: And on my far right.

SENATOR ALBRECHT: Joni Albrecht from northeast Nebraska, Thurston, Wayne and Dakota Counties.

SENATOR McCOLLISTER: John McCollister, District 20, central Omaha.

SENATOR BOSTELMAN: Bruce Bostelman, District 23, Saunders, Butler, and most of Colfax County.

SENATOR HUGHES: To my left is committee legal counsel, Laurie Lage; and to my far right is committee clerk, Mandy Mizerski. Our page for the committee is Lee-Ann Sims, she is from Lincoln; she is a junior at UNL studying political and global studies. So with that, our first order of business is the appointment to the Nebraska Game and Parks Commission, Mr. Scott Cassels. If you'd like to come up and have a seat, Mr. Cassels, and give us a little bit of background about yourself and what you hope to accomplish on the Game and Parks Commission. Welcome.  
[CONFIRMATION]

SCOTT CASSELS: Thank you. Thank you. Thank you. Mr. Chairman, committee members, my name is Scott Cassels. I'm told I'm supposed to spell it, but it's S-c-o-t-t C-a-s-s-e-l-s. And I appreciate the opportunity to tell you a little bit about myself here today. And I'll start with my family. I'm married; been married for 32 years come, I think, in a couple of weeks. I've got to remember that, not forget that date. Got two boys; one is 35, one is 25. They both work for Kiewit, which I'll talk about my career here in a minute. Like the senator, I have five grandchildren. Unlike you, they're all here in Omaha, so I get to see them a little more often, but you're headed to D.C. to see your newest one. So that's a little bit about my family. A little bit about my career is I started with Kiewit Companies in 1976, that's when I went on the Kiewit payroll. I was only 10 or 11 at the time, I think, if I remember right. (Laughter) But as a laborer and as an operator and a foreman, so I started out the in craft and then I went to Washington State University where I got my engineering and business management degree. So during the time that I was going to school, I also served as a summer intern, so learning the trades and learning to be a contractor. Spent the first 15 years of my career up and down the West Coast from Alaska to California to Hawaii doing all of what Kiewit does. I started as an engineer superintendent, project manager, senior area manager wherever we bid and built work for many

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public and private agencies...or private companies. In 1992, I was transferred to Georgia...Atlanta, Georgia, where I ran our business down there for ten years. And in 2002, I came to Omaha. I thought coming to Omaha was just my 23rd move for the company and I would be here for a few years and then I'd be off to the next one, but it didn't take long for the roots to get really deep and Omaha is now officially home and I'll be in the state. I'm a Cornhusker. I don't know what's going to happen if the Cougars from Washington State come play the Huskers. I may have to switch shirts, but I chase the Cornhuskers around, a real fan. And I'm currently an executive vice president for the corporation. I run our infrastructure business, which is about half of our company. And so I get up every Monday morning and I leave and I come home Friday nights and so I'm quite busy chasing the work around the U.S. and Canada. And I'm also on the board of directors. And like I said, I've been with the company since '76, full time '81, so 37 years full time and over 40 years since I started as a young man. So that's a little bit about me. I've got...at least my career. As far as passion goes, I'm an outdoorsman. I always say when I talk to people at Kiewit and I get to talk in front of quite a few different types of meetings, I said I've got three things I'm passionate about and my family is first and my career is second and hunting is third. I'm an outdoorsman by...and I love going outdoors; I love hunting. And so that's kind of what got me interested in the Game and Parks Commission. I'm also real close friends with Bill Grewcock who used to be on the commission. And so him and I spend time together and hunt together. I work for his son Bruce and Kiewit and got me excited about that. So I started investigating, finding out a little more about the Game and Parks and certainly its incredible organization that you have...we have here in the state with a goal to share our natural resources and made a great place for people to visit and use because we have a lot of great places in Nebraska. A little bit I've learned in my month or two of starting to work with the group it's from the 77 parks to the Berggren Commission for improving pheasant hunting for everybody in Nebraska to all the things they do, the new parks we're building in and around Omaha and out of Omaha. I think it's going to be an incredible thing to be part of. And I look forward to working with Tim and with Jim, if elected, to serve the state and the Game and Parks Commission. [CONFIRMATION]

SENATOR HUGHES: Okay, thank you, Mr. Cassels. Questions? Senator McCollister.  
[CONFIRMATION]

SENATOR McCOLLISTER: Thank you, Mr. Chairman, and thank you, Mr. Cassels, for your willingness to serve. I think you're going to be a perfect choice. [CONFIRMATION]

SCOTT CASSELS: Thank you. [CONFIRMATION]

SENATOR HUGHES: Additional questions? Seeing none, thank you for your willingness to serve. If you'd like to have a seat, we'll ask if anyone would like to come up and offer testimony

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in support of Mr. Cassels' appointment to the Game and Parks Commission. Would anybody like to offer testimony in opposition to his appointment to Game and Parks? Anybody want to offer testimony in the neutral position? Seeing none, that will close our hearing for the appointment of Scott Cassels to the Nebraska Game and Parks Commission. And we will move on to LB908. Senator Baker, welcome to the Natural Resources Committee. [CONFIRMATION]

SENATOR BAKER: (Exhibit 1) Good afternoon, Chairman Hughes, members of the Natural Resources Committee. My name is Senator Roy Baker, R-o-y B-a-k-e-r; I represent District 30, southern Lancaster County and Gage County. You had distributed to you on your desks a series of pictures which...you know, a picture tells a thousand words. You already know pretty much what this is all about. This bill is a result of a constituent, Cathy Krueger, building what is referred to as "earthship" home in Gage County. This construction uses tires as part of the building structure for walls. Tires are stacked in brick-like formation, packed with dirt, and any gaps between the tires are filled in with concrete. The pictures that you have come from a World-Herald article about the Krueger's home. Because it was very similar to, "earthhomes" that have been built in the state, whereas existing earthhomes use thermal barrier of the soil, earthships use tires to provide insulation which keeps the temperature within the home at approximately 70 degrees. During the construction process, Mrs. Krueger was approached by the Department of Environmental Quality regarding extra tires sitting on the land and the use of scrap tires in the construction of the home. Existing state law does not permit the use of tires in this manner. There are some exemptions spelled out and I'm sure you've all seen some uses of the used tires. Most every Class A and B football fields now is artificial turf and that uses particles of scrap tires used on playgrounds and some residential lawn and garden applications. Uses safety barriers at race courses when bolted together and properly wrapped. They are retreaded, processed into chip or shred form; used as a drainage media in landfill construction or septic tank fields and processed into shred form and used as an alternative daily cover in a landfill. My son's civil engineering project went in compliance with the engineers, architects, regulation act, and fire approval of the department. After much consideration and taking into account the investment Mrs. Krueger had already made to her home, the department allowed this one-time exception. Mrs. Krueger asked that I introduce the bill to allow additional exemptions. In the drafting process, the bill department raised issues on this type of use for scrap tires which, you know, we will hear. I introduced LB908 adding the exemptions to the law for using scrap tires when using the building system and filled with earth as permanent forms for walls in a single-family dwelling. The final approval of such system is attained from the department by the builder. Mrs. Krueger is here today and give you more detail on what "earthship" is, how it is constructed. Any questions? [LB908]

SENATOR HUGHES: Thank you, Senator Baker. Are there any questions? Seeing none, will you stay for closing? Oh, I'm sorry, Senator Geist. [LB908]

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SENATOR GEIST: Yes, thank you. And thank you, Senator, I appreciate you bringing this. I do have a question about building permits. If a person beyond Ms. Krueger were to build a home similar to this, do they have the same kind of building permits issued as regular construction? [LB908]

SENATOR BAKER: You know, Senator Geist, you live in Lancaster County, you know how particular everything is there. I think Gage County is less than that, so I don't know what all is required in Gage County. [LB908]

SENATOR GEIST: Okay. Okay. Thank you. [LB908]

SENATOR HUGHES: Any additional questions? Seeing none, thank you Senator Baker. We'll ask for proponents of LB908. Welcome. [LB908]

CATHY KRUEGER: Thank you. My name is Cathy Krueger, C-a-t-h-y K-r-u-e-g-e-r. First off, thank you for letting me come and testify in favor of LB908. I am building my earthship in Gage County and it was designed by an architect in Taos, New Mexico, by the name of Michael Reynolds, which I have his pin on here. And he's built these...he developed this type of...he calls it "bioteecture" as opposed to architecture because it directly is built on the principles of physics and also on trying to recycle as many products as possible to build your home. They're built worldwide in every climate from Canada to Indonesia. I personally went to Argentina to Tierra del Fuego to build one. There were 80 of us that went and we built one two years ago in 28 days. So it was a very whirlwind kind of a build. But as I said, one of the fundamentals of it is using recycled materials. So in my home, I have recycled polyiso insulation which is R-6 per inch. I have 9 inches of it in my roof. So the solar...by passive solar heating your home, you want to make sure that you're not losing any of that, so I have R-40 or R-52 in my roof. The glass on the greenhouse front of my home...so I have 55 feet of greenhouse glass in the front that goes 13 feet high and it's all recycled sliding glass door windows. And then, of course, the tires which are recycled. And they are round with dirt. Each tire gets approximately two wheelbarrow loads of dirt that you hand sledge...use a sledge hammer to compact that in which makes a 300-pound steel-belted rubber encased brick. They're very heavy. You don't want to move them once they're packed. They're very durable. They're fire resistant. We had one of these earthships actually went through a forest fire. And even though the whole structure was completely burnt, the exterior walls were completely fine. And all they had to do was clean up, rebuild the roof and the front and the home was able to be reestablished. They've also found that they are very earthquake resistant because, evidently, the rubber tires just kind of absorb the shock so they do very well where they get moderate earthquakes. This will never be a mainstream building material and I realize that. It's very time intensive, very labor intensive. However, for those of us who really want to build our own home and live sustainably earth friendly and without adding to the landfill,

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it's a very viable option. These are built literally all over the world for the last 20 years. They have done a study showing that there's no off-gassing and there is an engineer's report that you can buy for \$45 that they had...that we could provide as well if you need that. But it is an excellent home. There's a...in Taos where the architect lives, there is a community called the Greater World Community which is plotted out for 120 homes of this kind and it's a closed environment where earthships are the only type of home that can be built. Currently, there's 60 homes on it that have been built. And there is also a new one in Colorado that's being built which is strictly an earthship community. And these houses really focus on ending our reliance on fossil fuels for heating and cooling because of the passive solar; they heat themselves. And there's geothermal cooling. And as the senator said, I did not realize that this was going to be an issue at all. I went into the building and codes people and I bought my building permit. I showed them the plans, exactly what I was going to build and asked if there was anything else that I needed to do and they said no. So I was very surprised when this came up and found out that the tires were an issue. I thought everybody would be happy that I'm recycling and I'm not adding to the landfill. Let's see, I think that's all I had on my notes. So if you have any questions or... [LB908]

SENATOR HUGHES: Okay, thank you, Ms. Krueger. Senator Kolowski. [LB908]

SENATOR KOLOWSKI: Thank you, Mr. Chairman. Approximately how many tires did you use for your total construction? [LB908]

CATHY KRUEGER: You know, I don't even know. Probably getting close to 500ish. [LB908]

SENATOR KOLOWSKI: Thank you. [LB908]

SENATOR HUGHES: Senator McCollister. [LB908]

SENATOR MCCOLLISTER: Yeah, how many square feet in this structure? [LB908]

CATHY KRUEGER: The living space is a little over a thousand square feet. And then the greenhouse is an additional, I think, 550...it's 9 foot wide by I think 55 feet long. [LB908]

SENATOR MCCOLLISTER: And you currently inhabit this home? [LB908]

CATHY KRUEGER: No, it's not quite finished yet. I'm working on finishing the interior and I hope to be in it May 1, that's my goal. [LB908]

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SENATOR McCOLLISTER: It's great. Thank you. [LB908]

CATHY KRUEGER: Yeah. Yeah. [LB908]

SENATOR HUGHES: Additional questions? Senator Bostelman. [LB908]

SENATOR BOSTELMAN: Thank you, Mr. Chairman. Thank you for coming to testify today. [LB908]

CATHY KRUEGER: Thank you. [LB908]

SENATOR BOSTELMAN: I used to live in New Mexico. I know exactly where you're talking about. [LB908]

CATHY KRUEGER: Oh, yeah. [LB908]

SENATOR BOSTELMAN: I used to go by Taos (inaudible) up there and spent time up in that area. So I know exactly where you're at and what you're talking about. [LB908]

CATHY KRUEGER: Yeah. [LB908]

SENATOR BOSTELMAN: My question comes back a little bit to what Senator Geist was talking about before. The plans that you have and the architect who designs those, are you just purchasing the plans... [LB908]

CATHY KRUEGER: Yes. [LB908]

SENATOR BOSTELMAN: ...or does the architect have a license, or whatever, in the state of Nebraska so we're meeting local codes, those type of things? How do you address that? [LB908]

CATHY KRUEGER: I just purchased plans from Michael Reynolds. [LB908]

SENATOR BOSTELMAN: Okay, all right. Thank you very much. [LB908]

CATHY KRUEGER: Yeah, you're welcome. [LB908]

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SENATOR HUGHES: Any other questions? So I guess the question I have, where are you at in your process now? I mean, are you still building an illegal house or are you grandfathered in? [LB908]

CATHY KRUEGER: No, the DEQ gave me an exception so that...they said technically it doesn't...my use of tires doesn't fall within what you can do with a used tire or what you can't do, so it was kind of a gray area. So they said they were not going to make an issue of it and to them I was fine. [LB908]

SENATOR HUGHES: So anybody else who wants to do this... [LB908]

CATHY KRUEGER: So anybody else that wanted to build one. And I do know there's a house in western Nebraska that was built that had tires on it. I thought I was the first one. And then I have a Facebook page that I used to get volunteers to come help me and he got on my Facebook page and he's like, no, I have one. So the exterior walls of his house are built with car tires and I believe...I was going to...I think it's Kimball County, but I'm not positive, off the top of my head. But he didn't use all of the earthship features. But he does have the outside...the tire wall feature of the earthship. [LB908]

SENATOR HUGHES: So there's no law prohibiting you from using tires, for someone else to build a house like this? [LB908]

CATHY KRUEGER: I didn't know I was going to have an issue with it. So I really don't know. [LB908]

SENATOR HUGHES: Okay, okay. [LB908]

CATHY KRUEGER: Yeah. [LB908]

SENATOR HUGHES: Okay. Thank you. Are there any other questions? Seeing none, thank you, Ms. Krueger. [LB908]

CATHY KRUEGER: Thank you. [LB908]

SENATOR HUGHES: Appreciate you coming in and sharing pictures of your home. [LB908]



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CATHY KRUEGER: Thank you. And if anybody would like to come visit or take a look, just let me know. All right, thank you. [LB908]

SENATOR HUGHES: (Exhibit 2) Further proponents of LB908? Seeing none, anyone wishing to be an opponent of LB908? Anyone in the neutral position? We do have one letter in neutral from Jim Macy, Department of Environmental Quality. Senator Baker, you're welcome to close. Senator Baker waives closing, so that will conclude our hearing for today of LB908. Thank you, everybody, for coming. [LB908]